

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A catalyst ~~that comprises~~ comprising at least one hydrodehydrogenating element and a substrate ~~that comprises~~ comprising at least one silica-alumina, ~~whereby~~ said silica-alumina ~~has~~ having the following characteristics:

- a silica content ~~by weight of silica~~ of 10-60% by weight,
- a sodium content ~~that~~ is less than 300 ppm by weight,
- a total pore volume of between 0.5 and 1.2 ml/g,
- ~~the~~ a volume of mesopores with a diameter of between 40-150 Å, and a mean diameter of between 80-120 Å ~~represents~~ representing 30-80% of the total pore volume,
- ~~the~~ a volume of macropores with a diameter ~~that is~~ greater than 500 Å ~~represents~~ representing 20-80% of the total pore volume, and
- a specific surface area ~~that is~~ greater than 200 m²/g.

Claim 2 (currently amended): A catalyst according to claim 1, in which the silica-alumina comprises Al_{VI} (octahedral) species and Al_{IV} (tetrahedral) species, ~~whereby~~ wherein the proportion of the tetrahedral Al_{IV} is between 20 and 40%.

Claim 3 (currently amended): A catalyst according to claim 1, ~~in which~~ wherein the silica-alumina comprises 30-50% of Q² species, wherein an Si atom is linked to two Si or Al atoms and

to two OH groups and also comprises 10-30% of Q³ species wherein an Si atom is linked to three Si or Al atoms and to an OH group.

Claim 4 (currently amended): A catalyst according to claim 1, ~~that contains~~ further containing at least one of boron and silicon.

Claim 5 (currently amended): A catalyst according to claim 1, ~~that contains~~ further containing at least one element that is selected from among groups VIIA, VIIB, and VB.

Claim 6 (currently amended): A catalyst according to claim 1, ~~in which~~ wherein the substrate consists of said silica-alumina.

Claim 7 (currently amended): A catalyst according to claim 1, ~~whose~~ wherein the substrate further comprises 1-40% by weight of binder.

Claim 8 (currently amended): A catalyst according to claim 7, ~~in which~~ wherein the substrate ~~results from the~~ comprises a mixture of said silica-alumina and at least one binder selected from the group consisting of silica, alumina, clays, titanium oxide, boron oxide and zirconium.

Claim 9 (currently amended): A catalyst according to claim 1, ~~that has~~ having undergone a sulfurization treatment.

Claim 10 (currently amended): A process ~~for~~ comprising hydrocracking with a catalyst according to claim 1, at a temperature that is greater than 200°C, a pressure that is greater than

0.1 Mpa, with an amount of hydrogen of at least 50 l/l of feedstock, and with an hourly volumetric flow rate of 0.1 to 20 volumes of feedstock per volume of catalyst and per hour.

Claim 11 (currently amended): A process according to claim 10 for the hydrocracking of feedstocks ~~that are~~ selected from the group ~~that is formed by~~ consisting of kerosenes, gas oils, vacuum gas oils, atmospheric residues, vacuum residues, atmospheric distillates, vacuum distillates, heavy fuels, oils, waxes, paraffins, waste oils, deasphalted residues, deasphalted crudes, the feedstocks ~~that are~~ obtained from thermal conversion or catalytic conversion processes, ~~whereby the~~ said feedstocks ~~contain~~ containing less than 30% by weight of paraffins.

Claim 12 (previously presented): A process according to claim 10, wherein the feedstock is first hydrotreated.

Claim 13 (currently amended): A process according to claim 10, ~~in which~~ wherein the hydrocracking is carried out in two stages with intermediate separation, ~~whereby the~~ said catalyst ~~is used~~ being incorporated in at least one stage.

Claim 14 (currently amended): A process according to claim 10, ~~in which~~ wherein the feedstock contains less than 25% by weight of paraffin.

Claim 15 (previously presented): A catalyst according to claim 1, wherein the volume of macropores in said silica-alumina is 20-70% of the total pore volume.

Claim 16 (currently amended): A catalyst according to claim 4 ~~that contains~~ further containing at least one element ~~that is selected from among~~ groups VIIA, VIIB, and VB.

Claim 17 (currently amended): A catalyst according to claim 5, ~~in which~~ wherein the substrate consists of said silica-alumina.

Claim 18 (previously presented): A catalyst according to claim 5, ~~whose~~ said substrate ~~comprises~~ comprising 1-40% by weight of binder.

Claim 19 (currently amended): A catalyst according to claim 18, ~~that has~~ having undergone a sulfurization treatment.

Claim 20 (previously presented): A catalyst according to claim 19, wherein the volume of macropores in said silica-alumina is 20-70% of the total pore volume.

Claim 21 (new): A catalyst according to claim 1, wherein the substrate consists essentially of said silica-alumina.

Claim 22 (new): A catalyst according to claim 9, wherein the substrate consists essentially of said silica-alumina.

Claim 23 (new): A process comprising hydrocracking with a catalyst according to claim 21, at a temperature that is greater than 200°C, a pressure that is greater than 0.1 Mpa, with an amount of hydrogen of at least 50 l/l of feedstock, and with an hourly volumetric flow rate of 0.1 to 20 volumes of feedstock per volume of catalyst and per hour.

Claim 24 (new): A process comprising hydrocracking with a catalyst according to claim 22, at a temperature that is greater than 200°C, a pressure that is greater than 0.1 Mpa, with an amount of hydrogen of at least 50 l/l of feedstock, and with an hourly volumetric flow rate of 0.1 to 20 volumes of feedstock per volume of catalyst and per hour.